

CLAIMS

1. A method of creating metadata files for use in the personalization of media services in an information system including an information content database, in which parameters descriptive of the content of information services are arranged to be stored, and a user profile database, in which parameters descriptive of the users of information services are arranged to be stored, the method comprising:

creating a rulebase including the reaction impulses of a test user group to information stimuli presented;

creating a database descriptive of an information content space and including theoretical alternatives for the parameters descriptive of the content of the information services;

creating a database descriptive of a user profile space and including theoretical alternatives for the parameters descriptive of the users of the information services;

creating a database descriptive of a reaction space and including theoretical alternatives for parameters descriptive of the reactions of the users of the information services, the database being created as an interaction of the database descriptive of the information content space and the database descriptive of the user profile space, the interaction being specified based on the reaction impulses defined in the rulebase;

comparing the actual parameters descriptive of the content and the users of the information services with the theoretical parameters; and

creating metadata files as a result of said comparison for at least one user of an information service and for at least one content of an information service based on the reaction impulses defined in the rulebase.

2. A method as claimed in claim 1, wherein said rulebase is created by

presenting information objects, which belong to the information content space and whose content and presentation are varied, to a statistically significantly large test user group;

collecting data on the reactions of the test user group to said information objects; and

storing the reaction impulses of the test user group to the presented information objects in the rulebase by linking together the essential parameters of the user, the information content and the reaction.

3. A method as claimed in claim 2, wherein said measurement data specifying the reactions of the test user group includes at least some of the following:

- data measured by sensors on a user's heart rate, epidermal sweating, blood pressure and/or facial muscle tension;
- data determined by a camera on the user's eye movements;
- data based on questionnaires, interviews or observation of behaviour.

4. A method as claimed in claim 1, wherein said database descriptive of the information content space and the information content database include information objects that are parametrized by substantially the same parameters, which include at least some of the following: content substance, content modality, content format, conceptual structure of content.

5. A method as claimed in claim 1, wherein said database descriptive of the user profile space and the user profile database include information objects that are parametrized by substantially the same parameters, which include at least some of the following: implicit user profile, explicit user profile, information interest profile, use history profile, filtered profile.

6. A method as claimed in claim 1, further comprising collecting data during the use on the reactions of the users of the information services to the information objects presented;

updating the parameters of the information objects included in said user profile database based on the collected data; and

updating the linking relations of the user, information content and reaction included in the rulebase based on the collected data.

7. A method as claimed in claim 1, wherein a metadata file descriptive of an individual user is created by

comparing the parameters descriptive of said user with the parameters in the user profile space by placing corresponding parameters on top of each other; and

creating, as a result of said comparison, a correlation file that specifies the user's generic user category.

8. A method as claimed in claim 1, wherein a metadata file descriptive of an individual information service is created by

creating an interpretation file from the information content database, the interpretation file including linking addresses to the different information objects in the information content database;

comparing said interpretation file with the parameters in the information content space by placing corresponding parameters on top of each other;

creating a correlation file as a result of said comparison; and

deriving, from said correlation file by means of the linking addresses included in the interpretation file, a metadata file descriptive of the information objects included in said information service and the variation in their content.

9. A method as claimed in claim 1, further comprising

coding the information objects included in said information system as XML documents.

10. A method as claimed in claim 9, wherein

said XML documents includes a style sheet, such as an XSL style sheet for the appearance of an XML content document, the style sheet including instructions for converting the data included in an XML content document into an HTML document.

11. A media service information system including:

an information content database, in which parameters descriptive of the content of information services are arranged to be stored;

a user profile database, in which parameters descriptive of the users of information services are arranged to be stored;

a rulebase, in which the reaction impulses of a test user group to information stimuli presented are arranged to be stored;

a database descriptive of an information content space and including theoretical alternatives for the parameters descriptive of the content of the information services;

a database descriptive of a user profile space and including theoretical alternatives for the parameters descriptive of the users of the information services;

a database descriptive of a reaction space and including theoretical alternatives for parameters descriptive of the reactions of the users of the information services, the database being created as an interaction of the database descriptive of the information content space and the database descriptive of the user profile space, the interaction being specified based on the reaction impulses defined in the rulebase;

the actual parameters descriptive of the content and the users of the information services being arranged to be compared with the theoretical parameters; and

metadata files being arranged to be created as a result of said comparison for at least one user of an information service and for at least one content of an information service based on the reaction impulses defined in the rulebase.

12. An information system as claimed in claim 11, wherein said rulebase is arranged to be created by

arranging information objects, which belong to the information content space and whose content and ways of presentation are varied, to be presented to a statistically significantly large test user group;

arranging data to be collected on the reactions of the test user group to said information objects; and

arranging the reaction impulses of the test user group to the presented information objects to be stored in the rulebase by linking together the essential parameters of the user, the information content and the reaction.

13. An information system as claimed in claim 12, wherein said measurement data specifying the reactions of the test user group includes at least some of the following:

- data measured by sensors on a user's heart rate, epidermal sweating, blood pressure and/or facial muscle tension;
- data determined by a camera on the user's eye movements;
- data based on questionnaires, interviews or observation of behaviour.

14. An information system as claimed in claim 11, wherein said database descriptive of the information content space and the information content database include information objects that are parametrized by substantially the same parameters, which include at least some of the following: content substance, content modality, content format, conceptual structure of content.

15. An information system as claimed in claim 11, wherein said database descriptive of the user profile space and the user profile database include information objects that are parametrized by substantially the same parameters, which include at least some of the following: implicit user profile, explicit user profile, information interest profile, use history profile,

filtered profile.

16. An information system as claimed in claim 11, wherein
 data are arranged to be collected during the use on the reactions of
 the users of the information services to the information objects presented;
 the parameters of the information objects included in said user profile database are arranged to be updated based on the collected data; and
 the linking relations of the user, information content and reaction included in the rulebase are arranged to be updated based on the collected data.

17. An information system as claimed in claim 11, wherein a meta-data file descriptive of an individual user is arranged to be created by
 the parameters descriptive of said user being arranged to be compared with the parameters in the user profile space by placing corresponding parameters on top of each other; and
 as a result of said comparison, a correlation file that specifies the user's generic user category is arranged to be created.

18. An information system as claimed in claim 11, wherein a meta-data file descriptive of an individual information service is arranged to be created by

an interpretation file being arranged to be created from the information content database, the interpretation file including linking addresses to the different information objects in the information content database;

said interpretation file being arranged to be compared with the parameters in the information content space by placing corresponding parameters on top of each other;

a correlation file being arranged to be created as a result of said comparison; and

a metadata file descriptive of the information objects included in said information service and the variation in their content being arranged to be derived from said correlation file by means of the linking addresses included in the interpretation file.

19. An information system as claimed in claim 11, wherein
 the information objects included in said information system are arranged to be coded as XML documents.

20. An information system as claimed in claim 19, wherein
 said XML documents include a style sheet, such as an XSL style

sheet for the appearance of an XML content document, the style sheet including instructions for converting the data included in an XML content document into an HTML document.